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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,737	03/08/2004	Frank Pan	USP2355A-FP	2501

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EXAMINER

BENNETT, ZAHRA I

ART UNIT PAPER NUMBER

2875

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/796,737

Applicant(s)

PAN, FRANK

Examiner

Zahra Bennett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-31, 35, 36 and 41-43 is/are rejected.
- 7) ☒ Claim(s) 32-34, 37-40, 44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-26, 29, 30, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stopa (US Patent 6,641,284) in view of Hastings (US Patent 6,019,488).

With respect to claim 23, Stopa discloses a LED illuminating module, comprising:  
a supporting frame (14) having a top surface (unnumbered) and an elongated reflective channel (10) indented on the top surface and defining a peripheral reflective wall (unnumbered) inclinedly extended from a bottom wall (Figure 8: base of 10 which connects with 42) of the reflective channel; and

an illumination unit comprising a light circuit (40) supported by the supporting frame (14) and a plurality of illuminators (42) which are electrically mounted to the light circuit (40) and spacedly aligned along the reflective channel (10), wherein each of the illuminators (42) forms as a point of light source for radially emitting light towards the reflective wall, such that the reflective wall is adapted for reflectively accumulating the lights of the illuminators (42) within the reflective channel (10), so as to merge the points of light source to form a line of light source along the reflective channel for illumination.

Stopa does not teach that the head portions of the illuminators protrude from the top surface of the support frame. Hastings teaches that a head portion of the illuminator is outwardly protruded from the top surface of the supporting frame. It would have been obvious to one of ordinary skill at the time of the invention to have the illuminators of Stopa protrude from the top surface of the support frame for the benefit of enhancing the lighting effects, as taught by Hastings.

With respect to claim 24, Stopa discloses the reflective wall (unnumbered) has a height allowing the reflective wall to reflect the light from each of the illuminators radially projecting to the reflective wall, such that the reflective wall is adapted for reflectively accumulating the lights of the illuminators at radial direction within the reflective channel (Column 7, lines 5-9).

With respect to claims 25 and 26, Stopa teaches the reflective wall (unnumbered), having a reflective inclination angle (Column 3, lines 31-35) corresponding with a projecting angle of each of the illuminators, is continuously extended to surround the reflective channel (10) as a peripheral sidewall thereof to reflectively accumulate the lights of the illuminators (42) with the reflective channel.

With respect to claims 29 and 30, Stopa teaches that the bottom wall (Figure 8: base of 10 which connects with 42) of the reflective channel (10) is a flat surface adapted for reflectively accumulating the lights from the illuminators within the reflective

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channel, so as to enhance the points of light source to be merged to form the line of the light source along the reflective channel (Column 3, lines 31-40).

With respect to claims 35 and 36, Stopa teaches that the supporting frame (Figure 1: 14) further has a light reflective layer coated on the peripheral side wall and the bottom wall to form the reflective channel (10, see Column 5, lines 5-10).

Claims 27, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stopa and Hastings as applied to claims 23-26 above, and further in view of Pan et al. (US Publication 2005/0013131).

With respect to claims 27 and 28, Stopa teaches that the reflective wall has a reflective inclination angle with respect to the bottom wall of the reflective channel. Stopa does not teach that the inclination angle is larger than 90 degrees and smaller than 180 degrees. Pan teaches that the inclination angle of the reflective wall is larger than 90 degrees and smaller than 180 (Figures 2 and 3: 22 and 23, see [0016] lines 1-20). It would have been obvious to one of ordinary skill at the time of the invention to make the reflective inclination angle larger than 90 degrees and smaller than 180 for the benefit of enhancing the light, as taught by Pan.

With respect to claim 31, Stopa teaches that the bottom wall (Figure 8: base of 10 which connects with 42) of the reflective channel (10) is a flat surface adapted for reflectively accumulating the lights from the illuminators within the reflective channel, so

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as to enhance the points of light source to be merged to form the line of the light source along the reflective channel (Column 3, lines 31-40).

Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stopa as applied to claims 23, 24, 26, 28, and 31 above, and further in view of Ruskouski (US Patent 5,655,830).

With respect to claims 41-43, Stopa teaches the LED illuminating module comprising a light circuit. Stopa does not teach that the light circuit has a means for electrically connecting to a power source. Ruskouski teaches the LED illumination module (Figure 6) further comprising a means for electrically connecting the light circuit (105) to a power source (Column 2, lines 18-28).

#### ***Allowable Subject Matter***

Claims 32-34, 37-40, and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show or teach the LED module with a sealing housing as required by claims 32-34.

***Response to Arguments***

Applicant's arguments filed March 9, 2006 have been fully considered and addressed in the Office Action above, but they are not persuasive.

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zahra Bennett whose telephone number is 571-272-2267. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZB



RENEE LUEBKE  
PRIMARY EXAMINER